

# More Sheridan Memoirs

Dear Sir:

Burt Boudinot's fine article in the Jan-Feb 97 edition brought back some memories that I would like to share with fellow *ARMOR* readers. In late 1968, shortly after assuming command of the 2d Squadron, 4th Cavalry of the 4th Armored Division in Germany (later the 1st Squadron, 1st Cavalry of the 1st Armored Division), I was informed that my squadron would be receiving some "new armored reconnaissance vehicles called Sheridans." At that time, we had two M60 tanks in each armored cavalry platoon tank section, and those of us who had known the M41 light tanks wished we had them back. The scout sections had M114 recon vehicles (we were hoping that the new vehicles were replacements for these!); the infantry squads had M113 APCs; and the mortar squads had the 81mm mortar mounted in an M113 chassis.

A few days later, in a planning meeting at Grafenwoehr-Vilseck, we got the details of the impending changes and related requirements. We were told that General Polk, the CINC USAREUR/Seventh Army Commander, was being pressured to take these vehicles for all the armored cavalry units in his command, that he had fought it as long as he could, and had reluctantly agreed to take only enough for one divisional cavalry squadron for evaluation before agreeing to accept any more. My squadron had been selected as the evaluation unit, and several weeks later we began the process of turning in M60 tanks at our home station in Schwabach and receiving new equipment training at the Seventh Army Training Center (7ATC) in Grafenwoehr-Vilseck.

The initial orientation and training phase of the new equipment training (NET) program was presented by a team comprised of representatives from the Armor School, the Army Materiel Command/TACOM, USAREUR, 7ATC, and the vehicle manufacturer. From February through April, we shuttled crews and maintenance personnel between Schwabach and Vilseck for the NET. During that period, there were approximately 300 2-4 Cav personnel that attended about 10 different sessions of instruction, ranging from a four-hour block to a three-week course.

In late April '69, in Graf-Vilseck, we began to receive, deprocess, and train on our 27 new Sheridan Armored Reconnaissance/Armored Assault Vehicles (AR/AAVs). The troopers of 2-4 Cav were excited about these new vehicles and were eager to put them through the orientation phase, the gunnery exercises, and the following tactical operations evaluation.

Meanwhile, the squadron participated fully in the normal training and operational requirements of a divisional cav squadron — training and evaluating all the 4th Armored Division's 62 scout squads at a training site near Erlangen; training, evaluating, and live-firing our nine mortar crews in Grafenwoehr-Vilseck; getting "assisted" by the division's CMMI and AGI inspection teams; having our nine infantry squads participate in the division's mechanized infantry squad proficiency course (MISPIC) training and evaluation program near Erlangen; training and qualifying our three Redeye air defense teams; and other routine stuff.

As we proceeded through the modified tank gunnery tables I through VIII, we found that the Sheridan's combination of a conventional gun

and a missile caused all kinds of training and maintenance problems:

First, the program to make M60 tankers into AR/AAV crewman and to add Sheridan-specific maintenance tasks to our already overloaded track and turret mechanics was no easy mission; this new vehicle was different! Further, the Sheridan evaluation program exacerbated an already strained personnel situation and we were forced to use personnel from other skill areas and train them as Sheridan crewmen and mechanics.

The concerns relating to the combustible cartridge ammunition brought about some new and unusual requirements — e.g., training the loaders to quickly remove the "condom" when loading the round was tricky, and the "no smoking in the vehicles" rule took on a new importance.

The Confidential classification of the missile system meant that each vehicle had to be secured with Sargent & Greenleaf locks, handled and administered like a secure document, and all the crews and maintenance personnel had to be cleared. Our motor pool in Vilseck was ringed with three strands of concertina wire and guarded 24 hours a day by guards with loaded weapons. OH, WHAT FUN! (This situation got me in deep trouble once, perhaps another story at another time.)

The missile firing, guidance, and control components were very sensitive to the recoil shock of the 152mm conventional round, to the sun — if it were shining from a particular angle onto the vehicle, and to the normal (rough) handling by tankers.

Because of the erratic behavior of the missiles at times, special range clearances of the Graf-Vilseck complex had to be carefully coordinated and integrated with Range Control. There were several missiles that flew off, out of control, never to be seen again!

The failures and maintenance incidents during the evaluation were not, in themselves, too bad. However, the shortage of trained diagnostic personnel and repair parts caused unacceptable down time. The presence of the manufacturer's rep and his special, high-priority resupply line pulled us through.

After the gunnery exercises, we put the Sheridan through its paces in a wide-ranging, demanding, armored cavalry field exercise, including swimming some lakes in the Graf-Vilseck complex. Its mobility was excellent, far exceeding that of the M114 and M113 vehicles and, therefore, it added a potent capability to the squadron.

Our evaluation highlighted the personnel, training, and maintenance "challenges" for the following deployments of the Sheridan to USAREUR/Seventh Army units; however, some of those challenges were never resolved satisfactorily.

Later in 1969, the Air Cav Troop of the squadron was selected to participate in the USAREUR Air Cav Troop Evaluation. After several months of dramatic changes in personnel and equipment, and an extensive training program for the air cav troop, the evaluation culminated in a total squadron operational readiness test. This was a fast-moving, intensive, cavalry maneuver exercise conducted over wide frontages and extended distances (over the German countryside

in the Hohenfels-Regensburg-Neustadt o.d. Donau-Beilngries area) to "stretch" and evaluate the air cav troop capabilities. In that exercise, the excellent mobility of the Sheridans in the ground cav troops was clearly demonstrated. But what impressed me most was the tremendous capabilities of a cavalry unit that has both air and ground capabilities. It can be awesome if employed correctly.

In October 1970, when I assumed command of 3/11 ACR in Vietnam, the Sheridans had been there for several years and Burt Boudinot's article aptly describes that phase of the vehicle's lifetime. The flechette round was great. It was commonly called the "nails" round because they had nailed many a VC to the trees and to the ground. The troops also effectively used it to clear out or blow away nearby areas suspected of harboring the enemy or AP mines. The canister round was often used in heavy vegetation to clear the way ahead of the track. For that reason, the Sheridan led the way through the jungle areas many times.

We had some problems with the durability of the engines and transmissions. I recall a visit by the PM for the system to try to solve the problems. I think he left believing that our "jungle-busting" usage was far beyond the developed capabilities of the system.

Hits by mines and RPGs were devastating. The light armor and aluminum content of the vehicle were penetrated too easily, the combustible cartridge ammunition would shatter and burn instantly, and the vehicles would be destroyed very quickly. Too many troopers went to Fiddler's Green or a hospital because of such incidents. It is my deep-felt belief that we should never use combustible cartridge ammunition in a combat vehicle.

As the Sheridan closes out its long history, the many, many users of the system will likely have mixed feelings about it — some good, some bad. It certainly has served our forces in a wide variety of roles, missions, and environments. Perhaps this is its greatest legacy — a versatile system that was employed in a wide variety of situations. In that regard, such a vehicle is fitting for cavalry, and we need a replacement — although with today's technologies, we surely can develop a much better system for our cavalry and light armor units.

COL FRANK E. VARLJEN (Retired)  
Manassas, Va.

*COL Varljen was commissioned in Armor in 1952 from Armor OCS at Fort Knox, and is a veteran of two tours in Vietnam and four tours in Germany. He served for a total of 10 years in five different armored cavalry units in Germany, CONUS, and Vietnam, and was later TRADOC's Senior Liaison Officer to USAREUR. In his continuing work to find solutions in the countermine business, he was instrumental in the development and fielding of the M1 tank Track Width Mine Plow and the rolling Anti Magnetic Mine Actuating Device (AMMAD) (also called the Improved Dogbone Assembly. -Ed.*

### "You Get What You Ask For..."

Dear Sir:

I read the latest edition of *ARMOR* with great interest, particularly the articles and letters discussing the Sheridan. As a tanker, I have been fortunate to have had many varied and rich ex-

periences across the spectrum of Armor, including operational assignments, involvement in Armor-related modernization issues at HQ DA and, as an Acquisition Corps member, participation in the Armored Gun System (AGS) program. To one degree or another, the Sheridan and its replacement have been themes that have shaped and defined my professional career. The following comments are a personal testimony to my "love/hate" relationship with that little beast, the M551. In addition, I offer some related thoughts about requirements generation and future implications.

My earliest memories as a cavalry platoon leader in the mid-70s include feeling naked and exposed while sitting in a GDP position on the Czech border and patrolling the inter-German border in something that would barely stop a .50 cal. round. I can still conjure up vivid images of an onslaught of the Soviet horde that still fills one with foreboding about the chances of fighting and surviving against T62s in the M551. Other memories include the exhilaration of crashing about in Sheridans, conducting reconnaissance and screen missions on REFORGER, and charging across the desert at the NTC\* — when it worked. We were constantly surprised and amazed at the frequency and variety of ways in which the darn thing broke. This was only exceeded by the energy expended to make the supply system respond, to otherwise find parts across a thriving maintenance underground that linked all Sheridan units, and the ingenuity to make repairs by any means, fair or foul.

As a member of the DCSOPS staff and bit player in the actions that resulted in the AGS program, I offer your readers some background to provide context to the discussion.

Multiple analyses, over time, indicated that any useful measure of M551 upgrade was not affordable and could not provide the combat utility to justify the expense. The platform could not be economically upgraded to meet survivability and logistics supportability requirements. This is even more true today than it was five years ago. The platform is worn out. The system has little growth potential. Component suppliers are out of business. Industry has little apparent interest in building small quantities of specialized hardware at reasonable and affordable costs. Arsenal production is similarly not economical. Sheridan's retirement was long overdue.

The formal AGS requirement included a very technically challenging package of firepower (105mm cannon to use NATO standard ammo), accuracy (M1-equivalent), high crew survivability (with modular armor, exceeding Abrams in some aspects), and Abrams level of mobility. All of that and it had to be packaged for air delivery, which in user's terms meant Low-Velocity Air Drop (parachute) delivery from a C130.

Because of the then-stated urgency of need, an unconstrained world-wide market survey of all possible candidates, wheeled and tracked, was conducted. Many of those alternatives, including some called out in the AGS article and letters to the editor, were investigated, found significantly wanting, and then eliminated when judged against the formal requirement. The AGS, as designed, tested, and initially approved for low rate production, directly reflected the formal requirements as executed, considering the immutable laws of physics, the state of technology and materials, and the necessary technical trade-offs.

Let me be perfectly clear: AGS was brought in at the promised cost, on time, and performed as advertised. The materiel development process, with daily user (TSM and 82nd Abn Div) partici-

pation, delivered what was asked for. AGS cancellation, which I know was a painful decision, was necessary in light of the tightly constrained resource environment and overall priorities of the Army. If, in 20/20 hindsight, the AGS requirement did not reflect what was then needed, then those of us in the Armor community working those requirements missed the mark up front. However, I think the requirements were right. In some measure, differing points of view on those requirements, even now, reflect more the state of the discussion about the warfighting role and value of light armor in general, rather than the AGS in particular.

The AGS chapter is closed, as are those about our previous Mobile Protected Gun System effort, and the Marines' experience with the LAV 105. As the Sheridan passes from the scene, we now wrestle with how to shape and equip early-entry forces and respond to outcomes from the QDR process. It is useful to reflect that we are now writing the next chapter that will define our evolving warfighting triad of doctrine, force structure, and equipment. We are at the front end of Armor's future, where many in the community are now working technology and requirements embodied in advanced concepts such as Composite Armored Vehicle (CAV), Future Scout Vehicle, Future Combat Systems (FCS), and the allied Future Infantry Combat System (FICV). Looking outside of the Armor "box," we must also recognize that the Crusader artillery system, as the only significant ground system in current development, is the present "technology carrier" for many elements of any future ground combat weapon systems. We must, prior to final decision, be sure about what we want these systems to do.

In summation, I offer a lessons-learned spot report: You get what you ask for in this business (materiel and combat developments), so be careful what you ask for. As an institution, once we ask for something and carefully set priorities, we must all understand our part in the materiel development and acquisition processes and remain steadfast along the way. That is the only way to bring programs successfully to fruition. While change is inherent in a process that is a sequence of refinements to an estimate, indecision and unneeded changes always increase costs and lengthen program schedules. We can meet challenging requirements. We can't meet those that are incomplete or unstable. "Better is the enemy of good enough."

How can we do it better? I see great promise in Integrated Concept Teams (ICT), as embodied in the TRADOC "Blackbooks." ICTs can provide added rigor, cohesion, and stability to requirements definition, and prioritization as well as acquisition strategies. We must all make the ICTs work and follow through on the outcomes. The stakes are too high and the dollars too dear to do otherwise.

GEORGE E. MAUSER  
COL, Armor  
Via e-mail

\*In the early days of NTC, O/Cs used the Sheridan in force-on-force training as well as live-fire exercises.

*COL Mauser has served in cavalry, armor, and mechanized infantry units in CONUS and USAREUR and as an O/C at NTC, technical test officer of ground combat systems at Aberdeen Proving Grounds, and Product Manager, AGS Armaments. He currently commands the TA-COM-ARDEC Fire Support Armaments Center, Picatinny Arsenal, N.J.*